

Application No. 10/771,820
Amdt. Dated September 14, 1005
Amendment After Allowance

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1. (previously presented) A shutter switch for an electromagnetic millimeter beam, comprising:

a plurality of waveguides adapted to receive at least part of an electromagnetic millimeter beam, said waveguides being adjacent to one another with their longitudinal axes aligned with the propagation of said beam said waveguides switchable to either transmit or block transmission of their respective portions of said beam.

Claims 2-30. (canceled)

Claim 31. (previously presented) A millimeter beam transmission system, comprising;

an electromagnetic beam transmitter;

an electromagnetic beam receiver;

a shutter switch positioned in the path of a millimeter beam between said transmitter and receiver, said shutter switch comprising at least one waveguide positioned to receive at least part of said millimeter beam, the longitudinal axis of each of said waveguides aligned with the propagation of said beam, each of said waveguide being switchable to either transmit or block transmission of its respective portion of said millimeter beam.

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Claim 32 (previously presented). The system of claim 31, wherein said beam transmitter comprises a radiating element for generating a electromagnetic millimeter signal and a first lens positioned to collimate at least part of said millimeter signal into a beam, and said receiver comprises an electromagnetic receiving element and a second lens positioned to focus said beam to said receiving element, said shutter switch positioned between said first and second lenses.

Claims 33-47. (canceled)

Claim 48. (previously presented) A method of switching an electromagnetic beam, comprising:

transmitting said beam through one or more waveguides; and

switching the walls of said waveguides between high impedance and conductive states to control the propagation of selected modes of said beam,

wherein said electromagnetic beam has one or more polarizations and switching the sidewalls of said waveguides between high impedance and conductive states controls the propagation of said beam.

Claim 49. (previously presented) A method of switching an electromagnetic beam, comprising:

transmitting said beam through one or more waveguides; and

switching the walls of said waveguides between high impedance and conductive states to control the propagation of selected modes of said beam,

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wherein said electromagnetic beam is horizontally polarized and switching the sidewalls of said waveguides between high impedance and conductive states controls the propagation of said beam.

Claim 50. (previously presented) A method of switching an electromagnetic beam, comprising:

transmitting said beam through one or more waveguides; and

switching the walls of said waveguides between high impedance and conductive states to control the propagation of selected modes of said beam,

wherein said electromagnetic beam is vertically polarized and switching the top and bottom walls of said waveguides between high impedance and conductive states controls the propagation of said beam.

Claim 51. (previously presented) A method of switching an electromagnetic beam, comprising:

transmitting said beam through one or more waveguides; and

switching the walls of said waveguides between high impedance and conductive states to control the propagation of selected modes of said beam,

wherein said electromagnetic beam is horizontally and vertically polarized and switching the walls of said waveguides between high impedance and conductive states controls the propagation of said beam.

Claim 52. (previously presented) A method of switching an electromagnetic beam, comprising:

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transmitting said beam through one or more waveguides; and

switching the walls of said waveguides between high impedance and conductive states to control the propagation of selected modes of said beam,

wherein said electromagnetic beam is horizontally and vertically polarized, and has different frequencies, the switching of the walls between high impedance and conductive states controls propagation of said beam at different frequencies and polarizations.